

PERSONALITY-ORIENTED MOTIVES CHARACTERISTICS' SPECIALTIES OF TODAY'S MEDICAL STUDENTS PROFESSIONAL ACTIVITY

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Abstract

Introduction: To provide the medical industry with competent specialists, it is important to train motivated applicants in higher medical education institutions who aspire to be highly qualified medical doctors. Educational activity is depended and determined by certain individual psychological characteristics of its subjects, among which the leading place is occupied by motivation.

Objective: The target of our research was to establish the specialties and degree development of professional activity personality-oriented motives in foreign and Ukrainian medical students. We have solved the following tasks:

- 1 survey of medical university students on the types of physician' professional activity personality-oriented motives to group them by areas (personality-oriented, personality-socially oriented and personality-professionally oriented);
- 2 development of a questionnaire in Google form to ensure anonymity and facilitate the medical students' questionnaires results calculation of established motives' groups degree of development for their future professional medical activities;
- 3 anonymous questionnaires results' analysis and qualitative and quantitative characteristics establishment of doctors' activity personally targeted motives in foreign and Ukrainian medical students;
- 4 identification of possible differences and specialties in the degree development of doctors' professional activity personality-oriented motives in foreign and Ukrainian medical students

Materials and methods: The main methods were - anonymous survey and anonymous questionnaire, analysis, synthesis, comparison and description of research results. We offered to take a survey 4th, 5th and 6th year students from Odessa National Medical University, totally 316 students, 158 - citizens of foreign countries and 158 - Ukrainians.

Results: For both groups, while studying, the motivation to "become a doctor" has changed positively: "Yes, it has increased my motivation" - so said 6.9% of foreign respondents and 27.1% of Ukrainians; "Partly increased motivation" - was indicated by 15.2% of foreign respondents and 38.8% of Ukrainians. The majority of respondents (60.8% of foreign medical students and 67.1% of Ukrainian) made their choice to become a doctor on their own, some not by their own vocation, but by parents, a mentor, etc. 80.4% of foreigners and 72.7% of Ukrainian strive for self-development, and this will allow them to discover and enrich their personal potential; 82.9% of foreign and 75.3% of Ukrainians strive for self-improvement, which determines professional and personal growth, ensures the acquisition of professional skills by a doctor; 82.9% of respondents are motivated to constantly improve the level of professional knowledge and skills.

Conclusion: Personality-oriented motives of medical activity (cognitive, personal transformation, self-realization and personal benefit) relate to personal transformations towards self-development, self-improvement, realization of one's own potential due to the updated university curriculum and the introduction of a student-based approach. Being of significant leading importance for the majority of foreign and Ukrainian students, this makes it possible to predict that in the process of carrying out medical activities, respondents will improve themselves as professionals in the intellectual, moral and spiritual aspects and achieve acme-professionalism.

Keywords: motivation, personality-oriented motives, medical education, medical student, education enhancement, education impact, medical doctor.

1 INTRODUCTION

In order to provide the medical field with competent specialists, it is of great importance to train motivated applicants in higher medical education institutions, who will not be highly qualified medical specialists. As you know, educational activity, like every other type of activity, is determined by certain individual psychological characteristics of its subjects, among which the leading place is occupied by motivation. Quite a lot of scientific works have been devoted to the problematic issues of motives and motivation of professional activity. Yes, some scientists distinguish between internal and external motivation. Edwin Locke and Caspar Shake argue that "the notion of intrinsic motivation should be limited to a reference to the enjoyment of activity, separate from any further elements. It means to like to do..." [Locke E., Schattke K., 2018]. According to Falk Reinberg and Stefan Engeser "... along with this understanding of the internal relationship are other concepts (self-determination, experience of competence, interest and involvement, relevance of the middle end, goal orientation)..." [Reinberg F., Engeser S., 2018]. Edward Deci and Richard Ryan in the book "Conceptualisation of intrinsic motivation and self-determination" developed paradigms for testing predictions from various mini-theories [Deci E., Ryan R., 1985]. • Alan B. Cohen, Joel C. Cantor, Dianne C. Barker, and Robert G. Hughes (1990), Hazel K. Sinclair, Lewis D. Ritchie & Amanda J. Lee (2006) dealt with the motivation of medical students and young physicians.), Lekhan VM, Maksymenko OP. (2016), Poompong Sripa, Isaraporn Thepwoongsa, Radhakrishnan Muthukumar (2020) and others. However, the foreign and Ukrainian medical students characteristics professional activity of personality-oriented motives were not the subject of special research.

2 METHODOLOGY

The objective of our study was to establish the degree development of physician's professional activity personality-oriented motives in foreign and Ukrainian students of medical faculties.

2.1 Tasks

To achieve this goal we have solved the following tasks:

- 1 applicants survey for higher medical education on the types of doctor's professional activity personality-oriented motives to group them by areas (personality-oriented, personality-socially oriented and personality-professionally oriented) and questionnaire development;
- 2 questionnaire development in Google form to ensure anonymity and facilitate the calculation of the medical student's survey results on the development established groups degree of motives for their future professional medical activities;
- 3 anonymous questionnaires and the establishment of qualitative and quantitative characteristics personally oriented motives results analysis in medical activity;
- 4 possible differences identification in the physician's personality-oriented motives degree development in foreign and Ukrainian students professional activity.
- 5 the updated university curriculum and the introduction of a student-based approach by the tutor's support system functioning in educational-innovative center for the Odessa National Medical University [10] and Academic Progress enhancement tool from the Students' Group Unity Degree physicians practical training[11].

2.2 Participants

Applicants for higher education in various specializations studying at the Odessa National Medical University were asked to take a questionnaire anonymously using a link to Google Forms. A total of 316 students took part in the study, 158 were foreign countries citizens and 158 were Ukrainians. It should be noted that in order to determine possible differences in the degree of development of personally motivated motives of the doctor's professional activity, we took the same sample of foreign and Ukrainian students.

Of the 158 foreign medical students (hereinafter abbreviated as FSM), 69.6% of men and 30.4% of women passed the anonymous survey. Of the 158 Ukrainian medical students (hereinafter abbreviated as USM), 72.8% were women and 27.2% were men. Thus, among foreign medical students, most men expressed a desire to take the survey, while among Ukrainian - women. Of the entire sample, 98.1% of foreign students study in the contract form of study, and 63.3% of Ukrainian students. In total, students took part: 1) first year – 0,6 % of USM; 2) second year 4,4 % of USM;

3) fourth year – 37,1 % of USM; 4) fifth year – 71,5 % of FSM and 1,9 % of USM; 5) sixth year – 27,2 % of FSM and 48,1 % of USM; 6) interns – 1,3 % of FSM and 7,6 % of USM.

The anonymous survey was mostly attended by students studying in the following specializations:

- 1 Foreign medical students: 17.2% - Obstetrics and gynecology; 15.2% - Cardiology, 7% - General-Surgery; 5.7% - Pediatricians and others.
- 2 Ukrainian medical students: 32.3% - dentistry; 10.8% - pediatrician; 10.1% - obstetrics and gynecology; 7% - therapy%; 3.8% - cardiology; 3.8% - dermatology; 3.8% - anesthesiology and others.

To correlate the success of education with educational and professional motivation, we included in the questionnaire a question about the success of educational activities. Thus, according to the results, we found that among foreign and Ukrainian respondents, the success of educational activities is different. Thus, in particular, the success of educational activities in:

- 1 Foreign medical students is as follows between: 1) 3.0 to 3.25 – y 8,9 %; 2) 3.25 to 3.5 – y 13,9 %; 3) 3.5 to 4.0 – y 43 %; 4) 4.0 to 4.25 – y 19 %; 5) 4.25 to 4.5 – y 8,2 %; 6) 4.5 to 5 – y 7 %;
- 2 Ukrainian medical students is as follows between: 1) 3,0-3,5 – y 9,5 %; 2) 3,5-4,0 – y 49,4 %; 3) 4,0-4,5 – y 29,1 %; 4) 4,5-5,0 – y 12 %.

Thus, most FSM and USM respondents have between 3,5-4,0.

2.3 Research procedure

The study consisted of the following stages:

- 1 survey of foreign and Ukrainian medical students of different specializations studying at the Odessa National Medical University (to establish a list of personally motivated motives of the doctor's professional activity);
- 2 development of the questionnaire in Google form to ensure the anonymity of the questionnaire and the calculation of results;
- 3 anonymous questionnaire results analysis with its detailed description.

2.4 Research methods

In our research, the main methods were - anonymous survey and anonymous questionnaire, analysis, synthesis, comparison and description of research results.

2.5 Data analysis

We used Google Form and Microsoft Excel to process quantitative indicators of empirical data obtained during our research.

2.6 Ethical approval

The study was anonymous, conducted in accordance with ethical principles and with the voluntary consent of students.

3 RESULTS

Self-determination has a value-meaning nature, based on the active determination of one's position in relation to the future professional path, on life plans, goals and prospects of professional development.

It should be noted that the choice of future profession is in high school students under the various factors influence. Sometimes students choose a profession under the parents influence of, brother or sister, aunt or uncle, important to the person and other personally important people categories. In our study, 60.8% of FSM and 67.1% of USM made the choice to become a doctor on their own. Other respondents indicated that their choice of medical profession was influenced by:

- 1 parents - as stated by 5.1% of FSM and 31.6% of USM;
- 2 a Mentor: Teacher, professor, or doctor - 5.1% FSM
- 3 Historical famous person, Revolutionary - 2.5% FSM;
- 4 Sibling - 0.6% FSM and 0.6% USM;

5 Uncle, aunt - 0.6% USM

Thus, not all of the interviewed respondents chose the future profession independently, by their own vocation.

As you know, during training in higher education, professional motivation often changes. Therefore, we have foreseen the following question: "Has your motivation to become a doctor changed while studying at a higher education institution?" Respondents indicated that: Yes, the change is: it has increased my motivation – this was indicated by 6.9% of FSM and 27.1% of USM;

- 1 Yes, the change is: It has decreased my motivation - so indicated by 4.1% FSM and 10.2% USM;
- 2 No changes - as indicated by 20% FSM and 20.9% USM;
- 3 Partly increased motivation - as indicated by 15.2% of FSM and 38.8% of USM;
- 4 Partly decreased motivation - as indicated by 0.7% FSM and 1.5% USM;
- 5 Hesitated to answer - as indicated by 6.9% of FSM and 1.5% of USM.

Thus, during the study only 1/5 of students did not change their motivation to be a doctor, and some respondents changed their motivation positively, and some - negatively. That is, their independent choice of the profession of a doctor was reasonable and conscious.

In psychological science, it is common to distinguish between various motives, however, we believe that the motives of the socio-economic type of professions (including the motives of the doctor's professional activity) should be grouped into three groups - personality-oriented, personality-socially oriented and personality-oriented. In our study, we will consider the qualitative and quantitative characteristics of personality-oriented motives for medical activity.

The personality-oriented motives of medical activity include the following: 1) cognitive (self-knowledge); 2) personal-transformational: (self-education, self-correction, self-development, self-improvement, constant increase of the level of professional knowledge and skills); 3) self-realization (the ability to quickly advance in the career ladder, creative self-realization, realization of their own potential, etc.); 4) personal gain (material or non-material) (success; self-affirmation, successful implementation of medical technologies in their own lives; solving their own problems, achieving attractive social status; good earnings).

Cognitive motives. Any socio-professional type of profession allows applicants to know themselves through identification with the image of the profession; testing yourself in the profession, through knowledge of your own reserves and professional capabilities.

According to the results of the study, we found that respondents with the statement that "the medical profession will provide an opportunity to know yourself": 1) fully agreed - 67.7% FSM and 52.5% USM; 2) Partly agreed - 24% FSM and 36.7% USM; 3) Partly disagree - 5% FSM and 4.4% USM; 4) disagreed - 3.8% of USM. Not determined with respectively - 2.5% FSM and 2.5% - USM. Thus, self-knowledge through the profession is an important motive for foreign and Ukrainian students.

Personality-transformational motives (see table 1).

Table 1. Personality-transformational motives of professional activity

<i>The medical profession gives you the opportunity for:</i>	<i>Reply</i>									
	<i>I completely agree</i>		<i>Partly agree</i>		<i>Partly disagree</i>		<i>I do not agree</i>		<i>I hesitate with the answer</i>	
	<i>FSM %</i>	<i>USM %</i>	<i>FSM %</i>	<i>USM %</i>	<i>FSM %</i>	<i>USM %</i>	<i>FSM %</i>	<i>USM %</i>	<i>FSM %</i>	<i>USM %</i>
effective self-education	79,7	58,2	13,2	32,3	5,1	15,8	0	1,3	1,9	0
self-development	80,4	72,7	15,8	21,5	3,8	2,5	0	1,9	0	1,3
self-adjustment	88,6	53,1	10,1	33,5	1,3	5,7	0	1,9	0	1,9
self-improvement	82,9	75,3	16,4	17	0,97	4,4	0	1,9	0	1,3
constant improvement the level of professional knowledge and skills	82,9	75,9	14,5	20,3	2,5	1,3	0	0	0	2,5

It should be noted that the self-education of its specialists is of great importance for medical professional activity. As you know, self-education is based on adequate analysis and assessment of self-esteem of their own individual characteristics and potential. Self-education contributes to the in-depth acquisition of professional knowledge, skills, abilities; allows you to flexibly adapt to changing conditions of professional activity; provides continuous enrichment of the professional potential of the individual.

In the course of our research, we established quantitative indicators that the medical profession will promote effective self-education (79.7% of FSM and 58.2% of USM fully agreed with this statement; 13.2% of FSM and 32.3% are partly-agreed). Comparing the quantitative indicators of FSM and USM with each other, we can say that this motive is of great importance for all groups of respondents which may interfere with the effective implementation of professional activities. From the results of the research it was found that the motive of self-development is also of leading importance for the majority of respondents (fully agreed with this statement regarding self-development - 80.4% FSM and 72.7% USM %). These indicators indicate that respondents strive for growth, formation, integration and self-realization in professional activities. Since, it is self-development that allows a person to discover, enrich their own personal potential.

Respondents are also convinced that the medical profession will give them the opportunity to self-correct, is to correct their own shortcomings and weaknesses. Therefore, 88.6% of FSM and 53.1% of USM completely agreed with this statement; 2) Partly-agreed - 10.1% FSM and 33.5% USM. Thus, this motive is of leading importance both for foreign medical students and for Ukrainian ones. As can be seen from the results of scientific research, FSM are more focused on self-correction than USM. It should be noted that self-correction is a conscious purposeful process of personality, during which there is an overcoming of negative personal characteristics that may further interfere with the effective process of professional functions.

The motive of self-improvement is also a rather significant personal-transformational motive. It determines professional and personal growth, ensures the acquisition of professional skills by a doctor. We found that for 82.9% of FSM and 75.3% of USM, this motive is of paramount importance (respondents fully agreed with this statement).

Correlates with the motive of "self-improvement" motive "the profession of a doctor provides an opportunity to constantly improve the level of professional knowledge and skills." This is confirmed by the same indicators of the number of responses among foreign medical students for these reasons - 82.9%. As for Ukrainian students, their indicators differ slightly for these reasons (by 0.6%). Thus, it is clear that being a modern highly qualified medical worker is not possible without the desire to constantly improve their level of professional knowledge, skills and abilities.

Namely, the constant purposeful self-improvement of the individual leads him to acme-professionalism, as these motives are guided by a conscious process during which professionally important skills, abilities, qualities and abilities are developed and formed. These motives are aimed at expanding the professional competence of the doctor and achieving acme-professionalism in a certain narrow medical field.

Summing up the degree of significance for foreign and Ukrainian medical students of personality-transformational motives, we state that this group of motives has a high personal significance for the respondents. This indicates that in the process of mastering, testing and carrying out medical activities, most respondents will be professionally self-improving.

Self-realization motives (see table 2). In recent years, there has been a growing scientific interest in the problem of self-realization of the individual in the profession. This is primarily due to the fact that in the professional labor market, the competitiveness and competence of the specialist is highly valued.

Table 2. Self-realization motives of professional activity

The medical profession gives you the opportunity for:	Reply									
	I completely agree		Partly agree		Partly disagree		I do not agree		I hesitate with the answer	
	FSM %	USM %	FSM %	USM %	FSM %	USM %	FSM %	USM %	FSM %	USM %
Fast career growth	49,3	24	39,9	43,7	9,8	17,7	0	12	0	9
Creative self-realization	72,2	33,5	21,5	43,7	4,4	6,2	1,3	8,7	0,6	1,3
Own potential disclosure	81	63,9	15,8	29	3,2	2,7	0	3,1	0	1,3

The professional growth of a doctor can be accompanied by career growth, although these scientific categories come in different planes. Career growth is always targeted at empowerment. Many scientific works are devoted to the career growth of doctors, for example, the research of Katherine Reid, Hugh Alberti. (2018) found that "Perceived external pressures to pursue a career in General Practice can have a negative impact and medical schools should be made aware of this....".

According to the results of the study, we found that such a self-realization motive as "the medical profession will give them the opportunity to move quickly up the career ladder" has different indicators. Yes, some students fully agree with this statement (49.3% FSM and 24% USM), some Partly agree (39.9% FSM and 43.7% USM) This is due to the fact that foreign health professionals are highly specialized and do not have the opportunity rapid career growth.

Regarding the self-realization motive "the profession of a doctor will provide an opportunity to realize oneself creatively" (see Table 2). Comparing the results of the study, it should be noted that there is a difference in the beliefs of students. Thus, 72.2% of FSM are fully convinced that the medical profession will provide an opportunity to realize themselves creatively, while only among Ukrainian students only 33.5% believe so. Any professional activity gives an individual "the opportunity to realize their potential." And we can state that this motive was found in 81% of FSM and 63.9% of USM. Thus, the desire of foreign and Ukrainian students to realize their abilities, their potential, their talents ensures their authentic self-realization. Realization of oneself in a specific type of professional activity allows an individual to reveal their capabilities, using a set of their own abilities, knowledge and skills and meeting specific personal needs in order to be a competent and competitive specialist.

Summing up, I would like to stress that the self-realization motives of a doctor's professional activity have external and internal manifestations. The external form of self-realization of respondents includes their desire for personality to move quickly up the career ladder. The internal self-realization of the respondents includes motives: to realize oneself creatively and to realize one's potential. The combination of internal and external forms of self-realization of foreign and Ukrainian medical students provides their self-improvement in intellectual, moral, professional and spiritual aspects.

Motives for tangible and intangible personal gain (see Table 3). It is important for an individual to achieve their own goals and desires in the context of success. The majority of respondents are fully convinced that the medical profession will enable them to succeed (as indicated by 76.5% of FSM and 48.1% of USM). Analyzing the data (from Table 3), we see that Ukrainian students are not so positive about this motive, and do not quite trust the prospect of success through self-realization in the medical field. This can be partly explained by the fact that the salary of a medical worker in Ukraine is very low.

Table 3. Tangible and intangible motives of personal gain

The medical profession gives you the opportunity for:	Reply									
	I completely agree		Partly agree		Partly disagree		I do not agree		I hesitate with the answer	
	FSM %	USM %	FSM %	USM %	FSM %	USM %	FSM %	USM %	FSM %	USM %
Success	84,1	56,3	15,9	34,8	0	5	0	1,9	0	1,9
Self-asserting	65,8	44,4	29,7	37,3	4,7	8,2	0	8,7	0	1,3
Achieving an attractive status in society	76,5	48,1	13,5	41,1	4,7	5,1	0	4,4	4,4	1,3
Successful medical knowledge apply and technology in their own lives	74,6	68,3	20,4	25,3	2,4	3,3	1,3	1,3	1,3	1,3
Solving their own problems	62,6	29,7	25,9	41,8	10,1	12	0	10,1	1,4	2,5
Proving to themselves what they are worth	82,9	63,2	10,1	27,2	3,3	4,4	2,5	2,5	1,3	2,5
Well-earning	52,4	37,3	41	32,6	6,4	9,4	0	18,4	0	2,5

Any profession provides an opportunity for an individual to assert himself in his own self-consciousness. The motive of self-affirmation underlies personal and professional growth. The professional self-affirmation of a doctor is an integral part of his professional genesis. It is determined and conditioned by a person's life position in relation to the subjective picture of the professional path.

Thus, most respondents are convinced that the medical profession will give them the opportunity to assert themselves. 65.8% FSM and 44.4% USM fully support this statement, 29.7% FSM and 37.3% USM- Partly agree. Comparing the results of scientific research on this scale, we see that foreign students are more motivated to self-affirmation than Ukrainian students.

We also found that foreign students fully agree that the medical profession will give them the opportunity to achieve an attractive status in society - as indicated by 3/4 of foreign respondents (74.6%), while Ukrainian respondents are not so convinced, only 2 / 4 believe so (48.1%). While 1/5 of respondents- partly agree with this statement.

74.6% of FSM and 68.3% of USM fully agree with the thesis that "the medical profession will enable them to successfully apply medical knowledge and technology in their own lives." That is, one of the motives of professional activity is still a personal motive of self-help. This motive is somewhat correlated with the motive "the profession of a doctor will give them the opportunity to solve their own problems."

Thus, the majority of students are fully convinced that "the medical profession will give them the opportunity to solve their own problems" (as indicated by 62.6% of FSM and 29.7% of USM), 25.9% of FSM and 41.8% of USM Partly agree with this statement. . Comparing the survey results of foreign medical students (FSM) with the Ukrainian medical students results (USM), we see that the indicators of FSM persuasion are higher than in USM. That is, the mentality of a particular state affects the quantitative indicators of respondents' beliefs.

Everyone wants to be valued, to appreciate their potential, abilities and talents. Therefore, a significant personality-oriented motive for medical activity is the motive "to prove to myself what I am worth" - as indicated by the majority of respondents (82.9% FSM and 63.2% USM). Thus, respondents are convinced that by realizing yourself in medical activities you can show yourself that you are worth something in your professional field.

It should be noted that in Ukraine in recent years, the medical profession no longer has the prestige as before. The medical profession has lost its value, as the salaries of physicians have become very low. Therefore, the material motives of the professional activity of foreign and Ukrainian respondents have such radically different quantitative indicators (see Table 3).

Thus, tangible and intangible personal motives, of course, play an important role in determining the doctor's work manners, as they are associated with the guarantee of a stable future and ensuring a permanent job.

4 CONCLUSIONS

- 1 It is established that 60.8% of foreign medical students and 67.1% of Ukrainian students made their choice to become a doctor on their own. Some respondents indicated that their choice of future medical profession was influenced by: parents, a Mentor: Teacher, professor, or doctor, Historical famous person, Revolutionary, Sibling. Thus, not all of the respondents chose the future profession independently, by their own vocation.
- 2 It is emphasized that during the study in a higher education institution the professional motivation often changes. It was found that for foreign and Ukrainian medical students the motivation to "become a doctor" while studying in a higher education institution has changed positively ("Yes, the change is: it has increased my motivation" - said 6.9% of foreign respondents and 27.1 "Partly increased motivation" - so indicated by 15.2% of foreign respondents and 38.8% of Ukrainians).
- 3 Personally-oriented motives of medical activity (cognitive, personality-transformational, self-realization and personal benefit) concern personal transformations towards self-development, self-improvement, realization of own potential, etc. It is established that these motives are of significant leading importance for the majority of foreign and Ukrainian students.

This makes it possible to predict that in the process of carrying out medical activities, respondents will improve themselves as professionals in the intellectual, moral and spiritual aspects and achieve acme-professionalism. It was emphasized that the material support of Ukrainian doctors needs to be improved. Because it is the material motives associated with the guarantee of a stable future and the provision of permanent work.

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